

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: LUMARK

Report Number: P884670

Luminaire Tested: **NAV-SB5C-830-U-T4FT-HSS**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P884670  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5C-830-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 80 CRI, 3000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV  
FORWARD THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

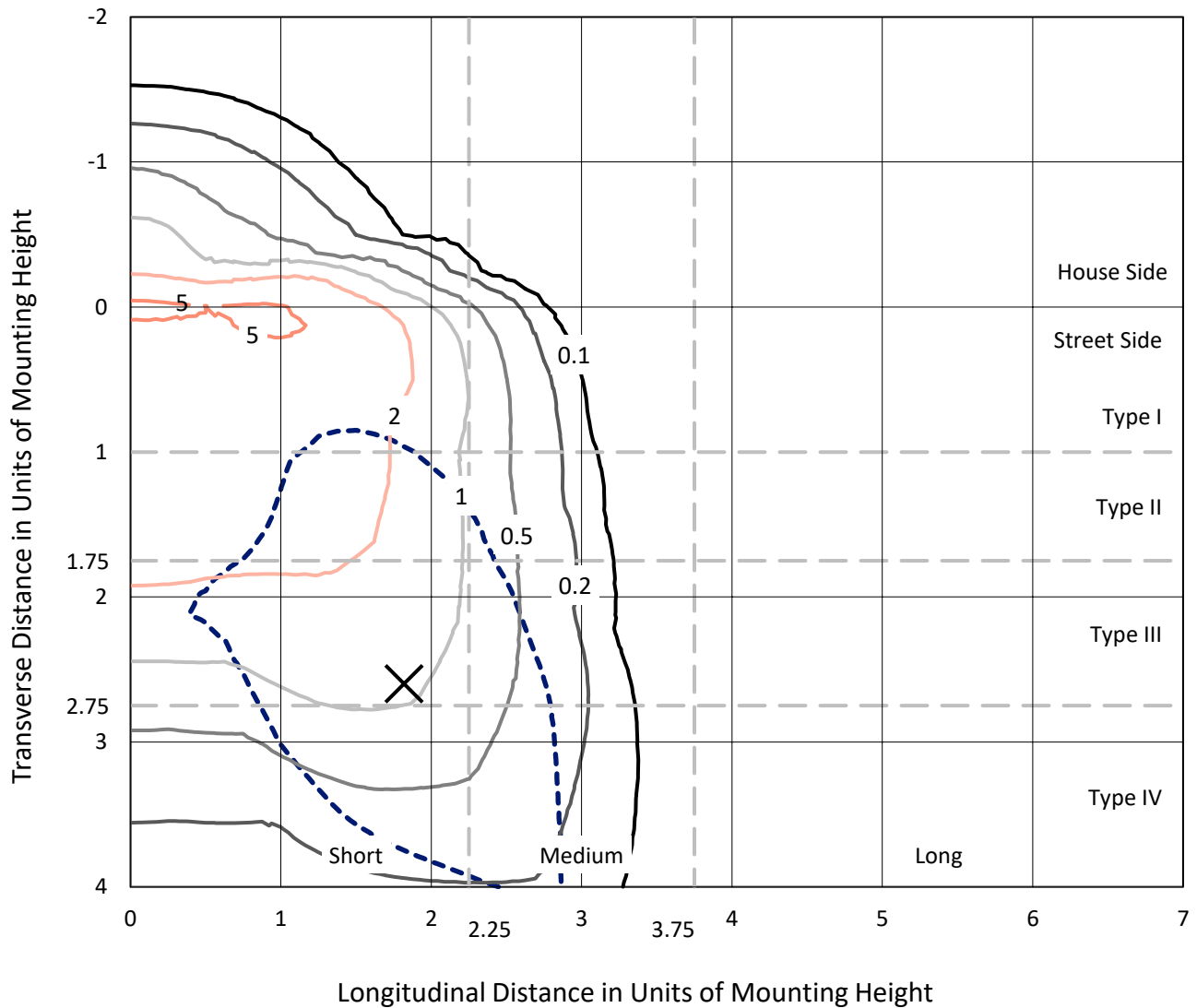
Lumens per Lamp: N/A  
Luminaire Lumens: 25177 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G4  
  
Input Watts (W): 249.5  
Input Voltage (V): 120.0  
Input Current (Ain): 2.116  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 7.885  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

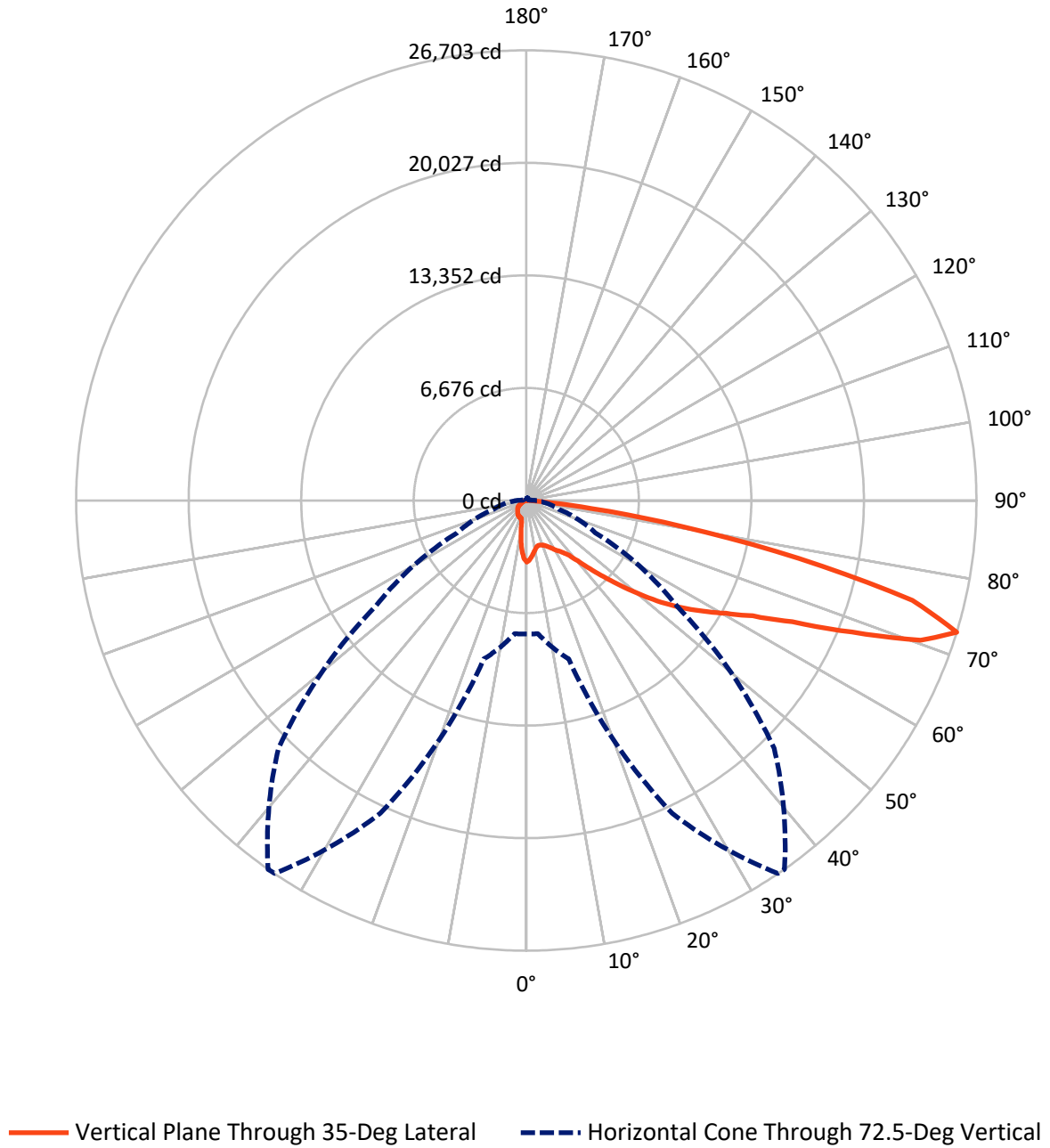
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2833.6	0.0	2833.6
	% Fixture	11.3	0.0	11.3
<b>Street Side</b>	Lumens	22343.5	0.0	22343.5
	% Fixture	88.7	0.0	88.7
<b>Total</b>	Lumens	25177.0	0.0	25177.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	299.8	1.2
10°-20°	701.5	2.8
20°-30°	1139.5	4.5
30°-40°	1901.3	7.6
40°-50°	3597.2	14.3
50°-60°	5716.0	22.7
60°-70°	7071.1	28.1
70°-80°	4395.4	17.5
80°-90°	355.2	1.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	25177.0	100.0
0°-180°	25177.0	100.0

**Coefficient of Utilization**



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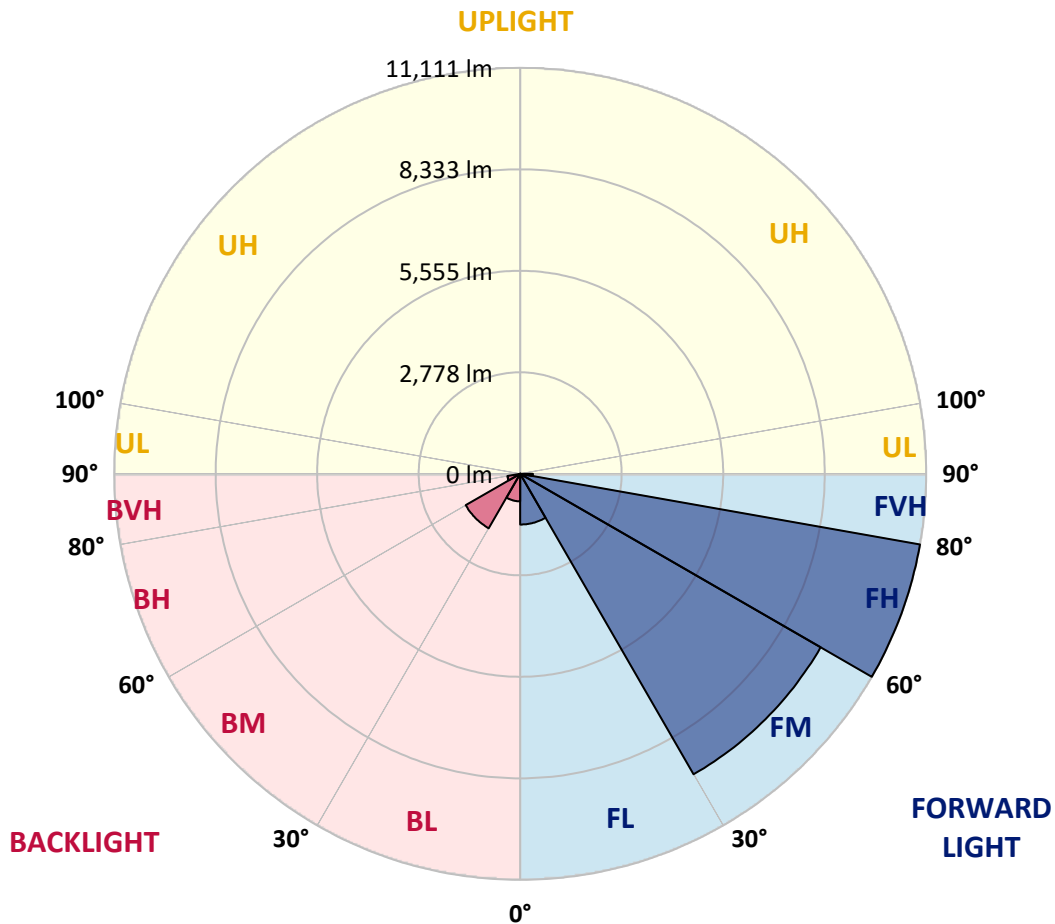
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1387.9	5.5			
FM (30°-60°)	9494.2	37.7			
FH (60°-80°)	11110.9	44.1			G4/12000
FVH (80°-90°)	350.4	1.4			G3/500
BL (0°-30°)	752.9	3.0	B2/1000		
BM (30°-60°)	1720.2	6.8	B2/2500		
BH (60°-80°)	355.6	1.4	B1/500		G1/500
BVH (80°-90°)	4.8	0.0			G0/10
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G4**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	34°	35°	45°	55°	65°	75°	85°
0°	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0
2.5°	3486.7	3516.2	3521.7	3530.9	3530.9	3542.0	3560.4	3586.3	3628.7	3650.8	3665.6
5°	3213.6	3235.8	3263.4	3285.6	3328.0	3333.5	3405.5	3475.6	3573.4	3647.1	3698.8
7.5°	2938.7	2964.6	3001.5	3055.0	3110.3	3126.9	3235.8	3353.8	3508.8	3647.1	3733.9
10°	2745.0	2746.9	2780.1	2833.6	2922.1	2942.4	3075.3	3243.1	3436.8	3625.0	3767.1
12.5°	2636.2	2649.1	2663.9	2704.5	2789.3	2802.2	2944.3	3141.7	3364.9	3612.1	3805.8
15°	2636.2	2645.4	2654.7	2674.9	2743.2	2754.3	2879.7	3077.1	3328.0	3617.6	3868.5
17.5°	2663.9	2678.6	2671.3	2695.2	2767.2	2774.6	2885.2	3058.7	3326.2	3652.7	3964.5
20°	2730.3	2741.4	2726.6	2741.4	2813.3	2828.1	2942.4	3093.7	3357.5	3713.6	4084.4
22.5°	2835.4	2841.0	2805.9	2817.0	2890.8	2909.2	3042.1	3193.3	3433.2	3811.3	4244.9
25°	2968.3	2979.3	2925.8	2938.7	3008.8	3031.0	3184.1	3342.8	3553.1	3946.0	4449.6
27.5°	3121.4	3126.9	3080.8	3079.0	3169.3	3200.7	3355.7	3527.2	3713.6	4115.7	4707.9
30°	3296.6	3313.2	3269.0	3261.6	3376.0	3401.8	3554.9	3754.1	3949.7	4370.3	5075.0
32.5°	3435.0	3447.9	3422.1	3440.5	3556.8	3577.0	3796.6	4075.1	4320.5	4731.9	5575.0
35°	3634.2	3641.6	3582.6	3615.8	3748.6	3800.3	4126.8	4525.3	4787.2	5185.7	6228.0
37.5°	4355.5	4355.5	4104.7	3940.5	4067.8	4113.9	4578.8	5091.6	5362.8	5794.5	7050.8
40°	5353.6	5337.0	4969.9	4634.1	4617.5	4707.9	5222.6	5805.5	6106.2	6525.0	7976.9
42.5°	6418.0	6392.2	5892.3	5560.2	5504.8	5536.2	5966.0	6685.5	6991.7	7416.0	8973.1
45°	7362.6	7355.2	6897.7	6451.2	6351.6	6451.2	6894.0	7714.9	7934.4	8380.9	9967.4
47.5°	8154.0	8154.0	7820.1	7528.6	7476.9	7536.0	8150.3	8856.8	8836.5	9408.4	10935.9
50°	9065.3	9057.9	8740.6	8615.2	8668.7	8751.7	9596.6	10059.6	9770.0	10417.5	11801.1
52.5°	9703.6	9747.9	9639.0	9618.7	9891.8	10035.6	11065.0	11236.6	10605.7	11375.0	12448.6
55°	10209.1	10260.7	10386.2	10528.2	11054.0	11242.1	12487.4	12352.7	11304.9	12205.1	12821.3
57.5°	10924.8	10851.0	11044.7	11325.2	12175.6	12402.5	13865.4	13406.1	11867.5	12878.5	12861.9
60°	11793.7	11804.8	11838.0	12192.2	13295.4	13586.9	15223.2	14402.3	12229.1	13291.7	12411.7
62.5°	12837.9	12854.5	12922.7	13467.0	14798.9	15073.8	16669.5	15217.7	12395.1	13175.5	11249.5
65°	12765.9	12836.0	13597.9	15459.3	17084.6	17355.8	18357.5	15789.5	12144.2	12112.9	9159.4
67.5°	11629.5	11743.9	13018.7	17839.1	20530.6	20833.2	20397.8	15902.1	11061.4	9419.5	5975.3
70°	10139.0	10179.5	11712.6	19979.1	24520.9	24827.2	22224.2	14664.2	8393.8	5254.0	2676.8
72.5°	7917.8	7927.1	9725.7	20475.3	26686.7	26703.3	20790.8	10886.1	4514.2	2018.2	929.8
75°	5656.1	5600.8	6513.9	16604.9	23478.6	23666.8	15586.6	5106.4	1724.9	953.8	463.0
77.5°	3032.8	3093.7	3685.9	9847.5	16219.4	16540.4	8504.5	1472.1	878.1	649.4	306.2
80°	937.2	988.8	1510.9	4508.7	9187.0	9380.7	3152.7	654.9	612.5	463.0	201.1
82.5°	295.2	306.2	704.7	1894.6	3813.2	3901.7	913.2	370.8	418.8	306.2	118.1
85°	84.9	86.7	313.6	706.6	942.7	961.1	256.4	143.9	239.8	190.0	60.9
87.5°	9.2	29.5	118.1	118.1	83.0	81.2	27.7	31.4	68.3	24.0	11.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0	3649.0
2.5°	3656.4	3658.2	3634.2	3593.6	3549.4	3512.5	3466.4	3429.5	3403.6	3396.3	3409.2
5°	3682.2	3669.3	3601.0	3477.4	3329.8	3202.6	3060.5	2948.0	2874.2	2842.8	2853.9
7.5°	3720.9	3684.0	3534.6	3291.1	3008.8	2758.0	2503.4	2306.0	2180.5	2117.8	2127.0
10°	3754.1	3680.4	3423.9	3021.8	2590.1	2210.1	1866.9	1628.9	1496.1	1433.4	1435.2
12.5°	3785.5	3678.5	3280.0	2702.6	2117.8	1652.9	1333.8	1215.7	1178.8	1165.9	1162.2
15°	3844.5	3684.0	3099.2	2337.3	1647.4	1248.9	1132.7	1130.9	1138.2	1134.5	1132.7
17.5°	3925.7	3689.6	2894.5	1949.9	1271.1	1101.3	1095.8	1112.4	1123.5	1117.9	1116.1
20°	4030.9	3711.7	2676.8	1566.2	1092.1	1064.4	1077.4	1092.1	1101.3	1092.1	1090.3
22.5°	4178.4	3750.5	2438.8	1258.1	1034.9	1042.3	1053.4	1070.0	1079.2	1066.3	1064.4
25°	4359.2	3811.3	2204.5	1094.0	1007.3	1016.5	1033.1	1051.5	1062.6	1049.7	1047.8
27.5°	4593.5	3909.1	1988.7	1057.1	979.6	985.1	1009.1	1036.8	1051.5	1034.9	1034.9
30°	4933.0	4069.6	1802.4	1073.7	963.0	950.1	983.3	1022.0	1038.6	1023.9	1022.0
32.5°	5383.1	4296.5	1688.0	1099.5	955.6	909.5	940.8	990.7	1018.3	1009.1	1009.1
35°	5973.4	4641.5	1643.7	1129.0	950.1	867.1	889.2	942.7	990.7	999.9	999.9
37.5°	6689.2	5121.1	1656.6	1141.9	933.5	832.0	843.1	889.2	951.9	981.4	988.8
40°	7502.8	5680.1	1730.4	1129.0	915.0	802.5	804.3	839.4	894.7	939.0	953.8
42.5°	8342.1	6333.2	1866.9	1081.0	898.4	776.7	771.1	795.1	832.0	863.4	876.3
45°	9140.9	7004.7	2001.6	1014.6	878.1	750.8	737.9	747.1	754.5	767.4	774.8
47.5°	9838.3	7476.9	1962.9	953.8	850.4	721.3	699.2	695.5	673.3	671.5	669.7
50°	10319.7	7580.2	1743.3	892.9	809.9	688.1	653.1	630.9	592.2	573.7	575.6
52.5°	10472.9	7172.5	1424.2	832.0	743.4	643.8	594.0	559.0	511.0	494.4	492.6
55°	10269.9	6373.7	1138.2	758.2	651.2	584.8	529.5	483.3	444.6	424.3	424.3
57.5°	9773.7	5357.3	900.3	671.5	553.4	518.4	463.0	416.9	383.7	363.4	359.7
60°	8950.9	4254.1	712.1	568.2	472.3	446.4	389.3	359.7	330.2	306.2	300.7
62.5°	7702.0	3036.5	559.0	450.1	394.8	365.3	332.1	309.9	274.9	241.7	236.1
65°	6010.3	1857.7	431.7	330.2	317.3	302.5	282.3	262.0	219.5	186.3	180.8
67.5°	3791.0	880.0	308.1	249.0	250.9	243.5	234.3	217.7	186.3	156.8	153.1
70°	1669.5	426.1	202.9	190.0	186.3	186.3	193.7	188.2	158.7	131.0	125.4
72.5°	568.2	228.8	151.3	143.9	134.7	132.8	162.3	156.8	127.3	101.5	95.9
75°	297.0	153.1	110.7	103.3	81.2	97.8	129.1	121.8	90.4	66.4	60.9
77.5°	193.7	108.8	75.6	66.4	46.1	64.6	95.9	84.9	53.5	33.2	29.5
80°	121.8	71.9	44.3	31.4	22.1	35.1	51.7	36.9	20.3	7.4	5.5
82.5°	64.6	36.9	16.6	11.1	9.2	11.1	12.9	9.2	3.7	0.0	0.0
85°	25.8	12.9	5.5	3.7	1.8	0.0	3.7	1.8	0.0	0.0	0.0
87.5°	9.2	1.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)